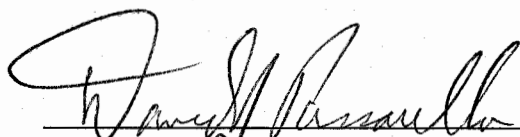


Collider-Accelerator Department

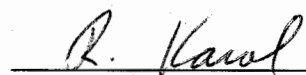
FY 2005 Self-Assessment Report

Prepared by:



David J. Passarello, QA

12/22/05
Date

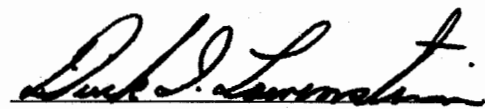
Approved by:


R. Karol, Division Head, ESHQ

12/22/05
Date


E. Lessard, Associate Chair for ESHQ

12-23-05
Date


D. Lowenstein, Department Chairman

1/3/06
Date

I. Self-Assessment Program

The objective of the C-A self-assessment program is to provide a systematic approach to performance management. That is, to provide C-A management with information needed to ensure organizational performance objectives are being met and appropriate improvement actions are identified and implemented.

Supporting information for the objectives of Critical Outcome 1.0, Basic Science & Technology, are reported in the BNL Integrated Information Management System. This system provides the data required for the preparation of BNL Appendix B Self Evaluation Reports.

C-A Self-Assessment supporting documentation; e.g., [Program and Facility](#), [Organization](#), [ESHQ Division](#), [Assessment and Inspection Programs](#), [C-A Environmental Management Program](#), [C-A Occupational Safety and Health \(OSH\) Management System](#), [Authorization Basis Documents](#), [Operations and Procedures Manual](#), [Conduct of Operations Agreement](#), [Training Programs and Associated Records](#) and [Tier 1 Safety Inspections](#), are maintained on the Collider-Accelerator web site.

The C-A Department has adopted a self-assessment framework primarily based on the Malcolm Baldrige National Quality Award Criteria, which are as follows:

- Leadership Commitment and Involvement
- Human Resource Development and Management
- Customer Focus and Satisfaction (Customer Value)
- Process Management
- Business and Operational Results
- Compliance with Laws Regulations and Contractual Requirements

II. Evaluation of Objectives and Measures

For each of the assessment criteria stated above, C-AD has established appropriate objectives and performance measures. (Reference attached matrix from C-A FY 2005 Self-Assessment Program) Results are documented in the C-A family ATS. A brief summary of C-A performance items, which were not captured in the matrix, are listed below.

1. Occurrence Reports, Nonconformance Reports and Investigations
 - a. Reportable occurrence trends are documented in the [C-A Performance Indicator](#) quarterly reports.
 - b. Seven Nonconformance Reports (NCR) were issued in FY05. Corrective actions were tracked to closure in the C-A Family Assessment Tracking System (ATS).
 - c. Thirteen critiques were performed at the direction of C-A ESHQ management. All recommended actions were tracked to closure in the C-A Family ATS.
2. EMS, OSH and SA
 - a. The ISO 14001 and OHSAS 18001 registration audit was conducted June 20 through 23 of 2005. There were no findings for the C-A Department. ISO 14001 and OHSAS 18001 registration was maintained.

- b. The C-A Department Management Review of Occupational Safety and Health (OSH), Environmental (EMS) and Self-Assessment (SA) Management System was convened on September 14, 2005. The meeting agenda including discussions on the following topics:
- Noise Exposure and Repetitive Strain Injuries
 - Critical Outcomes and Objectives in the Contract
 - Overview of C-AD Programs that Impact OSH and E management systems
 - C-AD Objectives and Targets
 - Compliance Audit Results
 - Performance Versus Contract Measures
 - External and Internal Assessment of Performance
 - Review of FY04 Record of Decision and Performance
 - Injury/illness Performance
 - Stakeholder Concerns
 - OSH and EMS Related Facility Improvements
 - Injury/illness and Pollution Prevention Initiatives
 - Tier 1 and Self Evaluation Programs
 - Environmental Performance
 - Groundwater Contamination and Controls
 - Waste Management
 - Financial Investments
 - Evaluation by Senior Management

Recommended actions resulting from the Management Review were documented in the 2005 Management Review Record of Decision. These action items will be incorporated into annual management plans that identify resources and responsibilities. See [C-A OPM 14.1, Environmental Management Plan for C-AD and SMD Operations](#) or [C-A OPM 14.30, OSH Management Plan for C-AD and SMD Accelerators, Experimental Areas, Shops and Offices](#). The C-A Family ATS will be used to document the status of each recommended action.

3. Assessments

Overall, C-AD conducted 273 internal assessments/reviews in 2005. These consisted of the annual Department Self-Assessment, annual EMS Assessment and OSH Assessment, annual Environmental Management Review, 24 worker and supervisor self-evaluations, 11 QA assessments, 39 Tier 1 inspections, 52 90-Day Area inspections and 144 inspections of satellite-waste stations. Action items resulting from these internal assessments/reviews are tracked to closure in the C-A Family ATS.

III. Summary

The audits, assessments and reviews which have occurred in FY 2005 have verified that the Collider-Accelerator Department has implemented outstanding programs and systems which support BNL's broad mission of providing excellent science and advanced technology in a safe, environmentally responsible manner. In addition, the Department continues to maintain an excellent commitment by its staff and users to the various policies and programs that the Department and Laboratory have established.

IV. Open Action items from the FY 2005 Self-Assessment Program (ATS 2742) and C-A 2004 Environmental Management Review Record of Decision (ATS 2421)

The following open items from the C-A FY 2005 Self-Assessment Program and C-A 2004 Environmental Management Review Record of Decision will be included in the C-A FY 2006 Self-Assessment Program.

[2742.1.12](#) - Electrical Ad Hoc Committee action items

Description: Implement corrective actions in the report of the Electrical Ad Hoc Committee

- a. Update elect distribution one-line drawings
- b. Implement the web based LOTO data entry/tag system

(All other action items have been closed.)

History: a. C-A has been working on updating drawings using available resources.
b. LOTO system software is functioning; implementation is being phased in at C-A due to funding issues.
Both items will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.2.2](#) - Training of Building Managers

Description: Increase the number of Building Managers trained in OSHA regulations

History: OSHA training for building managers is being updated; training will take place in FY 2006. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.2.3](#) - Assess OPM 9.4.2 (FY 04 SA)

Description: Assess implementation of C-A OPM 9.4.2, C-A Self-Evaluation, original due date was in CY 04; assessment was re-scheduled due to change in system owner.

History: Due to manpower issues assessment of the implementation of C-A OPM 9.4.2, C-A Self-Evaluation, was rescheduled to CY 2006. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.3.1](#) - g-2 environmental updates

Description: Provide environmental updates to CAC & BER on g-2 submission of a Focused Feasibility Study. Actual due date is 6/06.

History: Work is on going and on schedule. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.6.1](#) - Installation of cap at Linac (FY 04 ROD)

Description: Place water-impermeable membranes over activated soil areas at the Linac. All caps with the exception of two minor suspect areas are in place.

History: BLIP spur cap has been installed. The remaining caps at HEBT water stops and Linac to Booster Transition will be tracked to closure in the C-A FY 2006 Self Assessment Plan.

[2742.6.2](#) & [2421.1.1](#) - FY 04 clean-up strategy (FY 04 ROD)

Description: Clean up the steel and other debris on Railroad Avenue, concentrate on cleaning up "Inner Mongolia," and begin to remove/replace PCB capacitors at Linac. Provide current status on the following.

A - Cleanup RHIC yard, Rail Yard, 628 and 960

B - Cleanup Inner Mongolia

C - Replace Linac PCB capacitors.

History: A - RHIC, 960, 628 complete. Rail yard 95% complete.

B - Work completed in April 2005.

C - 128 large capacitors and 94 medium capacitors replaced and sent to waste.

All medium sized capacitors replaced with non-PCB capacitors. ½ large capacitors replaced and 12 small capacitors in Linac replaced. Complete for this year.

All remaining work will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.6.3](#) - Fire protection upgrade installation (FY 04 ROD)

Description: There should be renewed emphasis on fire protection since it impacts safety and routine operations. For example, the aging fire-alarm system is a major concern. Because some fire protection upgrades have started but are proceeding slowly, the Department should encourage Plant Engineering to use an outside supplier to install the new fire alarm system components.

History: As stated, due to funding restraints, BNL is approaching these upgrades slowly. The C-A ESHQ Division will monitor upgrades of the fire protection system. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.6.5](#) - Add ozone water treat system (FY 04 SA)

Description: Pursue High Return on Investment (ROI) P2 funding from DOE for installation of additional ozone water treatment system for RHIC STAR cooling tower. This action item was initiated in the C-A FY 2004 Self-Assessment. As of 2/11/05, no funding was available in 2005. Decision made to follow-up in FY 2006.

History: Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.6.6](#) & [2421.1.3](#) - Upgrades to C-A water system (ADS# 0007) (FY 04 SA)

Description: Perform planned upgrades to C-A water systems in accordance with ADS # 0007 and track progress. This is an ongoing program that started in 2001. There are many subtasks or efforts that pertain. This program is incrementally funded and will continue for at least 3 more years with any additions.

History: This is an ongoing effort. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.6.7](#) - g-2 plume (FY 04 SA)

Description: Work with ERD to review and determine best method to deal with g-2 tritiated plume. A Focused Feasibility Study will be written by 2006. Long term monitoring and natural attenuation of the plume are to be expected

History: Work is on going. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.6.21](#) - Inventory of ozone depleting substances

Description: Conduct an inventory of Ozone Depleting Substances and forward that inventory to the CAA SME

History: C-A is currently in the process of inventorying and disposing cylinders of Freon, Forane, etc. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2742.6.25](#) - Eliminate NSRL photographic waste

Description: Eliminate NSRL photographic waste through the implementation and use of the NSRL digital imaging system.

History: NSRL has the digital imaging system in place. Photographic chemicals will be used this run and phased out from that point on. Some experiments may require old methods and will be used on an individual basis. Follow-up of the NSRL digital imaging system will be entered into the C-A FY 2006 Self Assessment Plan.

[2421.1.4](#) - Mapping of activated soil areas

Description: Complete the archival mapping of activated soil areas.

History: Work on this project has been completed at a good pace this year. It will be closed out and re-entered in next year's FY06 ROD. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2421.1.6](#) - Building 912 roof

Description: Continue to promote the repair of the Building 912 roof.

History: Building 912 roof repair to continue in FY 2006 as funding permits. Action will be entered into the C-A FY 2006 Self Assessment Plan.

[2421.1.16](#) - Repetitive OSHA violations

Description: The Tier 1 inspection program has found and reported numerous repetitive OSHA violations (easy stuff, such as blocked electrical panels). The C-AD ESHQ Division should work with the WOSH Committee to suggest ways to implement a system to prevent repetitive violations.

History: This issue was discussed with WOSH Committee. C-A ESHQ periodically sends out discussion memos on repetitive issues and requests building managers to inspect and correct these issues. OSHA violations are down from 500 per year to 200 per year. Action will be entered into the C-A FY 2006 Self Assessment Plan.

Matrix from C-A FY 2005 Self-Assessment Program

ASSESSMENT CRITERIA 1: Leadership Commitment and Involvement		
OBJECTIVE: Excellence in environmental responsibility and safety in all Department operations. 1.1. Maintain laboratory-wide ISO 14001 and 18001 registrations and continually improve the EMS and OSH programs. 1.2. Improve Material Handling Programs 1.3. Streamline OSH and E Management Systems 1.4. Reduce Injury Rates to Meet DOE Expectations 1.5. Compliance With Requirements and Standards 1.6. Renew Emphasis on Fire Protection Upgrades 1.7. Improve Electrical Safety Programs		
Measures	Responsibility	Schedule/Due Date
Maintain ISO 14001 Registration ISO 14001 surveillance audit performed by third party, ISO 14001 registration maintained. (2742.1.8)	Associate Chair for ESHQ	September 2005
Maintain ISO 18001 Registration ISO 18001 surveillance audit performed by third party, ISO 18001 registration maintained. (2742.1.1)	Associate Chair for ESHQ	September 2005
Management review and ROD Management Review completed and "Record of Decision" issued. (2742.1.14)	Associate Chair for ESHQ	September 2005
OSH/EMS team task list Complete the OSH/EMS Team task list (2742.1.15)	Associate Chair for ESHQ	September 2005
Implement open corrective actions in the report of the Electrical Ad Hoc Committee, original ATS 1425. (2742.1.12) a. 1425.1.7 - Update elect distribution one-line drawings (<i>Open</i>) b. 1425.1.15 - Implement the web based LOTO data entry/tag system (<i>Open</i>)	ESHQ Division Head	September 2005
Reference section 10, Structure, Authorities, Responsibilities in attachment 1, C-A OPM 14.1, Environmental Management Plan for C-AD and SMD Operations , for the complete list of tasks/measures, responsible person(s) and scheduled completion dates. Reference section 10, Structure, Authorities, Responsibilities in attachment 2, C-A OPM 14.30, OSH Management Plan for C-AD and SMD Accelerators, Experimental Areas, Shops and Offices , for the complete list of tasks/measures, responsible person(s) and scheduled completion dates. All tasks will be tracked to closure in the C-A Family Assessment Tracking System. (2421 and 2742)		

ASSESSMENT CRITERIA 2: Human Resource Development and Management		
OBJECTIVE: Create a pool of talented, empowered, motivated, and goal oriented leaders/managers/workers to support and enhance the C-A competitive position within the DOE laboratory complex.		
Measures	Responsibility	Schedule/Due Date
Increase the number of building managers trained in OSHA regulations (2742.2.2)	ESHQ Division Head	September 2005
Maintain staff training > 95% complete (2742.2.1)	C-A & SMD Training Managers	September 2005
Increase employee awareness of safety through participation in multiple (~4) safety awareness activities; e.g. show the film remember Charlie (2742.2.4)	ESHQ Division Head	September 2005

ASSESSMENT CRITERIA 3: Customer Focus and Satisfaction (Customer Value)		
OBJECTIVE: Operate the C-A facility in a manner that is responsive to C-A internal and external customer expectations.		
Measures	Responsibility	Schedule/Due Date
Provide environmental updates to CAC & BER on g-2 Focused Feasibility Study (2742.3.1)	ESHQ Division Head	June 2006

ASSESSMENT CRITERIA 4: Process Management		
OBJECTIVE: Establish, maintain and improve C-A processes/procedures for implementing Laboratory and organizational expectations.		
Measures	Responsibility	Schedule/Due Date
Perform assessment on the C-A implementation of the BNL Management System - Emergency Preparedness (2742.4.1) • Shelter-in-Place	Q Group	September 2005
Perform assessment on the C-A implementation of the BNL Management System - Environmental Management (2742.4.2) • Regulatory Compliance • EMS Assessments • Management Review	Q Group	Annual 3 rd quarter
Perform assessment on the C-A implementation of the BNL Management System - Worker Safety and Health (2742.4.3) • Lockout/Tagout • Interlock Safety for Protection of Personnel	Q Group	September 2005

ASSESSMENT CRITERIA 5: Business and Operational Results		
OBJECTIVE: 1 Design and construct new accelerator facilities in support of the BNL and national missions. 2 Operational a) Operate and improve the suite of proton/heavy ion accelerators and beam transports used to carry out the program of accelerator-based experiments at BNL thus supporting the research mission of the laboratory's user population. b) Support the experimental program including design, construction, and operation of the beam transports to the experiments plus partial support of detector and research needs of the experiments.		
Measures	Responsibility	Schedule/Due Date
1. C-A Operations per FY05 Schedule and the accelerator performance meets the operational goals as specified in the FY 2005 Field Work Proposal. (2742.5.1) 2. Meet critical milestones of the Spallation Neutron Source (SNS) as defined in SNS Project Plan. (2742.5.2)	Associate Chair, Accelerators SNS Project Manager	September 2005

ASSESSMENT CRITERIA 6: Compliance with Laws Regulations and Contractual Requirements

OBJECTIVE:

1. Compliance - Achieve full compliance with applicable environmental requirements.
 - a. Consistently meet all SPDES permit limits and comply with the Liquid Effluents subject area.
 - b. Article 12 Conformance.
 - c. Improve Resource Conservation and Recovery Act (RCRA) and Radiological Waste Compliance
 - d. Meet Federal and State Air Program Requirements including reducing the use of (and eventual phase out of) Ozone Depleting Substances (ODS)
 - e. Schedule and conduct regulatory compliance assessments to evaluate compliance to applicable regulations on a three-year cycle
 - f. Participate in EPA Performance Track Program
2. Pollution Prevention - Integrate pollution prevention (P2) into work planning processes (facility design, experimental review, process assessment, work planning, etc.) and expand participation in the P2 program.
 - a. Reduce generation of hazardous, mixed, and low-level radioactive routine waste streams
 - b. Expand awareness and involvement in the BNL P2 Program. Evaluate and implement pollution prevention opportunities.
 - c. Reduce or prevent generation of non-routine waste, including spills
3. Communications - Improve communications, trust, and relationship with stakeholders on environmental programs.
4. Groundwater Protection - Fully implement groundwater protection program. Protect groundwater quality from further chemical and radiological releases, and remediate existing contaminated groundwater.
5. Enhance Natural And Cultural Resource Management Program - Ensure responsible stewardship of natural and historical resources onsite.

Measures	Responsibility	Schedule/Due Date
Reference section 10, Structure, Authorities, Responsibilities in attachment 1, C-A OPM 14.1, Environmental Management Plan for C-AD and SMD Operations , for the complete list of tasks/measures, responsible person(s) and scheduled completion dates.		
Reference section 10, Structure, Authorities, Responsibilities in attachment 2, C-A OPM 14.30, OSH Management Plan for C-AD and SMD Accelerators, Experimental Areas, Shops and Offices , for the complete list of tasks/measures, responsible person(s) and scheduled completion dates.		
All tasks will be tracked to closure in the C-A Family Assessment Tracking System. (2421 and 2742)		

Attachments

- Attachment 1, [C-A OPM 14.1, Environmental Management Plan for C-AD and SMD Operations,](#)
- Attachment 2, [C-A OPM 14.30, OSH Management Plan for C-AD and SMD Accelerators, Experimental Areas, Shops and Offices](#)